

Application No. 10/579,576
Amdt. dated 28 May 2010
Reply to Office Action of 30 March 2010

REMARKS / ARGUMENTS

In the above-identified Office Action the Examiner has rejected claims 1, 15 and 17 as indefinite. Applicant has corrected the matters noted and, as corrected, believes the claims now to be acceptable under 35 U.S.C. section 112.

Claims 12-18 have been rejected as unpatentable over Woodruff in view of Rickard. As understood, the Examiner believes that the low pressure conditions of Rickard might be used in the process of Woodruff to cause the ammonia gas in the solution to become insoluble. Applicant notes at the outset that, while low pressure is claimed, there is no recital in the subject claims of making the ammonia gas in the solution become insoluble. Further, Woodruff is directed to a biogas method that suggests a conditioner, which might include acids or alkalis (column 4, line 64), that might be added to the bi-products to enhance anaerobic decomposition. With this suggestion by Woodruff, it is clear that the waste product can be heated in Woodruff's first vessel with an alkali, contrary to the requirements of Claim 12. As such, Applicant does not believe the combination of art cited by the Examiner suggests the subject application as claimed.

The present invention liberates CO₂ and NH₃ together quantitatively from the liquid phase in one vessel (first vessel). The liberation is only based on temperature and pressure steps. No chemicals (acids/alkali) and no bacteria are added, contrary to the suggestion of Woodruff. The gases are then transferred into the second vessel where both gases react with the aqueous absorption agent.

Woodruff uses separate units. One cannot compare his anaerobic digester with the present invention's first vessel. Woodruff uses an anaerobic digester, where gases such as methane and carbon dioxide are liberated. These gases are created by microorganisms which break down biodegradable material in the absence of oxygen (see, for example, column 5, line 21-53). The microorganisms (bugs, bacteria) have to be added. The use of microorganisms is clearly apparent from the phrase "anaerobic

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digestion" and also from the words "mesophilic" and "thermophilic" (see column 5, line 21 etc.). A mesophile is an organism that grows best in moderate temperature. At this stage, mainly methane and carbon dioxide are created. Ammonia is only produced as a trace gas, i.e., less than 1% (see column 5, line 34).

The remaining effluent contains mainly all ammonia (see column 2, lines 63-67: "significant ammonia levels").

Further, Woodruff needs an ammonia stripper in order to liberate ammonia from the liquid effluent (see, for example, column 6, line 20 etc.). The liberation of ammonia requires the addition of alkali in order to increase the pH value (see column 6, line 21 etc.). Additional heating is also necessary. This is explained further in column 12, line 54 etc. and column 18, line 19 etc. where it is disclosed that the adjustment of the pH value requires the use of NaOH or KOH. Therefore, Woodruff clearly uses chemicals such as alkali.

Thus, it is evident that Woodruff produces CO₂ in one vessel by using microorganisms and produces NH₃ in another vessel by a stripping process, wherein alkali and heat are essential.

Applicant hereby requests reconsideration and reexamination thereof.

No further fee or petition is believed to be necessary. However, should any further fee be needed, please charge our Deposit Account No. 23-0920, and deem this paper to be the required petition.

With the above amendments and remarks, this application is considered ready for allowance and applicant earnestly solicits an early notice of same. Should the Examiner be of the opinion that a telephone conference would expedite prosecution of

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the subject application, he/she is respectfully requested to call the undersigned at the below listed number.

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Respectfully submitted,



Dated: 28 May 2010

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